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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/587,164

07/26/2006

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EXAMINER

PARSONS, THOMAS H

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

12/17/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                             |  |
|------------------------------|-------------------------------|-----------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/587,164 | Applicant(s)<br>UKAI ET AL. |  |
|                              | Examiner<br>THOMAS H. PARSONS | Art Unit<br>1795            |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/26/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

Page 19, paragraph [0054], line 15, the text "...water purifier 11 are not intended to the active..." appears awkwardly worded.

Page 24, paragraph [0063], line 1, suggest changing "system 101" to --system 100--.

Page 25, paragraph 0067], line 3, suggest changing "a plenty" to --plenty--.

Appropriate correction is required.

### ***Abstract***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the instant application exceeds 200 words. Accordingly, the Examiner shorted as appropriated to within the range of 50 to 150 words.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 7 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al. (US 2003/0129465).

**Claim 1:** Nakamura et al. in Figure 6 disclose a fuel cell system comprising:

a hydrogen generator (reformer 41) configured to generate hydrogen by causing a reforming reaction to proceed using a material and water;

a fuel cell (11) configured to generate power by causing an electrochemical reaction to proceed using the hydrogen generated in the hydrogen generator and an oxidizing agent;

a cooling water circulation portion (i.e. defined by the path 12→14→11→13→12) configured to circulate water for cooling the fuel cell;

a water condenser (53) configured to condense water discharged from at least one of the hydrogen generator and the fuel cell;

a first water storage portion (18) configured to store the water condensed by the water condenser (53);

a water supply portion configured to take out the water from the first water storage portion (18) and to supply the water to at least one of the hydrogen generator (via 48) and the cooling water circulation portion (via 19);

a controller (31); and

a water replenishment portion (21) configured to replenish the water in the first water storage portion (18) from the cooling water circulation portion (12); wherein the first water storage portion is provided with a discharge port (discharge from 18 via 48 or 19 anticipate a discharge port); and

the controller is configured to perform control so that the water in d first water storage portion is discarded through the discharge port (via 48) and water replenishment portion (21) causes the cooling water circulation portion to replenish the water in the first water storage portion (paragraphs [0191]-[0203]). See also entire document.

**Claim 7:** Nakamura et al. in Figure 7 disclose that the controller (31) is configured to perform control such that the water supply portion (19) supplies water from the first water storage portion (18) to the cooling water circulation portion (12) by using the water that is discharged from at least one of the fuel cell (11) and is condensed by the water condenser (53).

**Claim 11:** Nakamura et al. in Figure 6 a water purifier (22 or 47) configured to purify water supplied by the water supply portion from the first water storage portion to at least one of the hydrogen generator (via 48 and 47), and the cooling water circulation portion (via 19 and 22).

**Claim 12:** Nakamura et al. disclose that the water purifier includes an ion exchange resin (paragraph [0092]).

#### ***Allowable Subject Matter***

5. Claims 2-6 and 8-10 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Reasons for the Indication of Allowable Subject Matter***

6. The following is a statement of reasons for the indication of allowable subject matter:

Claims 2-6 and 8-10 disclose various configurations for the controller that are neither taught nor suggested in the prior art references of record.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS H. PARSONS whose telephone number is (571)272-1290. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas H Parsons/  
Examiner, Art Unit 1795

/PATRICK RYAN/  
Supervisory Patent Examiner, Art Unit 1795